

REMARKS

The Office Action dated March 19, 2009 has been received and carefully studied.

The Examiner rejects claims 1, 3-4 and 6-15 under 35 U.S.C. §112, second paragraph, as being indefinite. The Examiner suggests identifying the molecule having the epoxy groups as the diglycidyl ether. By the accompanying amendment, the molecule has been so identified. It is believed that the amendment overcomes the rejection.

The Examiner newly rejects claims 1, 3-4, 7-8 and 12-13 under 35 U.S.C. §103(a) as being unpatentable over Giroux et al., U.S. Publ. No. 2002/0117259 in view of Steinberg, U.S. Patent No. 3,450,613, as evidenced by Touhsaent, U.S. Publ. No. 2002/01146559. The Examiner states that Giroux et al. teach a radiation curable composition comprising a radiation curable resin which is obtained by subjecting a diglycidyl ether of bisphenol A to acrylic acid to form an acrylate ester. The Examiner states that as evidenced by Touhsaent, the amount of acrylic acid is an amount that is equivalent to the number of epoxy groups in the molecule of the diglycidyl ether. Polyglycidyl ethers of resorcinol are mentioned in paragraph [0019]. Photoinitiators are mentioned in paragraph [0090], and Steinberg is cited as disclosing radical photopolymerization initiators for preparing radiation curable compositions. Inorganic fillers having an average particle diameter of 16 nm are mentioned in paragraph [0053].

The rejection is respectfully traversed.

The Examiner considers that Giroux et al. teach that the diglycidyl ether can be of resorcin instead of bisphenol A. However, "resorcin" disclosed in Giroux is used as a reactant of "an epoxy resin", which is one component of a curable composition (refer to paragraph [0019]). Giroux et al. do not disclose or suggest that "resorcin" is used as a reactant of a "(meth)acrylate component", which corresponds to the claimed radiation curable resin. Therefore, the claimed radiation curable resin represented by general formula (2) in claim 1 is not suggested by Giroux et al.

Additionally, the Examiner states that the diglycidyl ether of Giroux can be of resorcin, which, when subjected to acrylic acid in an amount that is equivalent to the number of epoxy groups in the molecule of the diglycidyl ether, forms the resin represented by the general formula (2) of Applicant, where p of Applicant is 0. However, p in the general formula (2) is defined as "a positive number in the range of 0 to 20", which obviously means a number more than 0, and excludes 0. Accordingly, the claimed component (a) does not include the resin wherein p is 0, and thus the claimed component (a) is clearly different from the resins conceivable from Giroux et al.

The instantly claimed sealant for liquid crystal has enabled the provision of a sealant for liquid crystal that is excellent in low liquid crystal contamination and a liquid crystal display cell that has excellent reliability.

Steinberg, cited for its disclosure of a radical photopolymerization initiator, and Touhsaent, cited as evidence

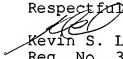
that the amount of acrylic acid is an amount that is equivalent to the number of epoxy groups in the molecule of diglycidyl ether, do not supply the deficiencies of Giroux et al.

The remaining claims are rejected over the same combination of Giroux, Steinberg and Touhsaent, with the further citation of Saint, U.S. Patent No. 6,156,816 against claim 6, Tsubota, U.S. Patent No. 5,596,023 cited against claim 9, Tsubota and Rogers, U.S. Patent No. 3,294,748 cited against claim 10, Flynn, U.S. Patent No. 3,901,833 cited against claim 11, and Chern, U.S. Patent No. 4,297,401 cited against claims 14-15.

None of Tsubota, Rogers, Flynn or Chern, alone or in combination, supplies the above deficiencies of Giroux et al.

Reconsideration and allowance are respectfully requested in view of the foregoing.

Respectfully submitted,


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